Contents to volume 280

Review Letter

Heat shock proteins and cell proliferation (FEBS 09453) *P.M. Pechan* 1

Hypothesis

Allosteric mechanism of enhancer action? (FEBS 09447) *V.M. Studitsky* 5

Research Letters

Differentiation associated modulation of K-FGF expression in a human teratocarcinoma cell line and in primary germ cell tumours (FEBS 09445) *P.N. Schofield, T.J. Ekström, M. Granerus, W. Engström* 8

Correct intron splicing generates a new type of a putative zinc-binding domain in a transcriptional activator of *Aspergillus nidulans* (FEBS 09455) *P. Kulmburg, T. Prangé, M. Mathieu, D. Sequeval, C. Scazzocchio, B. Felenbok* 11

The spin trap, α-phenyl *N-tert*-butylnitrone, inhibits the oxidative modification of low density lipoprotein (FEBS 09444) *B. Kalyanaraman, J. Joseph, S. Parthasarathy* 17

Light-harvesting complexes of brown algae: Biochemical characterization and immunological relationships (FEBS 09446) *C. Passaquet, J.C. Thomas, L. Caron, N. Hauswirth, F. Puel, C. Berkaloff* 21

Release of periplasmic proteins induced in *E. coli* by expression of an N-terminal proximal segment of the phage fd gene 3 protein (FEBS 09448) *B. Rampf, P. Bross, T. Vocke, I. Rasched* 27

Saturation of the processing of newly synthesized rRNA in isolated brain mitochondria (FEBS 09449) *J.A. Enriquez, M.J. López-Pérez, J. Montoya* 32

Epidermal growth factor stimulates the phosphorylation of pyruvate kinase in freshly isolated rat hepatocytes (FEBS 09456) *S.K. Moule, J.D. McGivan* 37

Effect of alanine insertion (P'_5) on the reactive centre of α_1-antitrypsin (FEBS 09452) *A. Avron, F.H. Reeve, J.M. Lickorish, R.W. Carrell* 41

Intramitochondrial formation of oxidized glutathione during the oxidation of benzylamine by monoamine oxidase (FEBS 09462) *P. Werner, G. Cohen* 44

Analysis of the protein products encoded by variant glucokinase transcripts via expression in bacteria (FEBS 09457) *C. Quaade, S.D. Hughes, W.S. Coats, A.L. Sestak, P.B. Iynedjian, C.B. Newgard* 47

The repression of the reverse-oriented transcription from the adenovirus terminus by NFI in competition with TFIID (FEBS 09458) *K. Matsumoto, K. Nagata, F. Hanaoka, M. Ui* 53

Proton flow through the ATP synthase in chloroplasts regulates the distribution of light energy between PS I and PS II (FEBS 09459) *G. Braun, Y. Evron, S. Malkin, M. Avron* 57

Antibodies against the cytoplasmic tail can differentiate between the quaternary forms of the M_r 46000 mannose 6-phosphate receptor (FEBS 09460) *S.K. Nadimpalli, B. Schmidt, K. von Figura, A. Hille* 61

Molecular cloning and expression of a protein-tyrosine phosphatase showing homology with transcription factors Fos and Jun (FEBS 09451) *G. Swarup, S. Kamatkar, V. Radha, V. Rema* 65

Two of the three actin-binding domains of gelsolin bind to the same subdomain of actin: Implications for capping and severing mechanisms (FEBS 09454) *B. Pope, M. Way, A.G. Weeds* 70

Demonstration of a transcription element in vitro between the capping site and translation initiation site of the mouse myelin basic protein gene (FEBS 09463) *T. Tamura, K. Mikoshiba* 75

Expression of insulin-like growth factor-IA and factor-IB mRNA in human liver, hepatoma cells, macrophage-like cells and fibroblasts (FEBS 09464) *I. Nagaoka, A. Someya, K. Iwabuchi, T. Yamashita* 79

Mobilization of the hormone-sensitive calcium pool increases hepatocyte tight junctional permeability in the perfused rat liver (FEBS 09465) *J. Llopis, G.E.N. Kass, S.K. Duddy, G.C. Farell, A. Gahm, S. Orrenius* 84

Fast oxygen-independent degradation of the D1 reaction center protein in photosystem II (FEBS 09466) *C. Jegerschöld, S. Styring* 87

The inhibition of restriction endonucleases due to Z-DNA in negatively supercoiled plasmid (FEBS 09467) *E.A. Lesnik, Z.A. Bes'chetnikova, R.N. Maslova, J.M. Varshavsky* 91

High-velocity mechanical DNA transfer of the chloramphenicolacetyl transferase gene into rodent liver, kidney and mammary gland cells in organ explants and in vivo (FEBS 09469) *A.V. Zelenin, A.A. Alimov, A.V. Titomirov, A.V. Kazansky, S.I. Gorodetsky, V.A. Kolesnikov* 94

Regulation of gene expression of macrophage-colony stimulating factor in human fibroblasts by the acute phase response mediators interleukin (IL)-1β, tumor necrosis factor-α and IL-6 (FEBS 09450) *L. Mantovani, R. Henschler, M.A. Brach, R.H. Mertelsmann, F. Herrmann* 97

Endothelin-induced intracellular Ca^{2+} mobilization through its specific receptors in murine peritoneal macrophages (FEBS 09468) *J. Kishino, K. Hanasaki, T. Kato, H. Arita* 103

Fourier transform infrared spectroscopic study on retinochrome and its primary photoproduct, lumiretinochrome (FEBS 09470) *N. Sekiya, A. Kishigami, H. Naoki, C.-W. Chang, K. Yoshihara, R. Hara, T. Hara, F. Tokunaga* 107

Streptavidin-induced lysis of homologous biotinylated erythrocytes: Evidence against the key role of the avidin charge in complement activation via the alternative pathway (FEBS 09471) *V.R. Muzykantov, M.D. Smirnov, G.P. Samokhin* 112

The influence of heptane-1,2,3-triol on the size and shape of LDAO micelles: Implications for the crystallisation of membrane proteins (FEBS 09472) *P.A. Timmins, J. Hauk, T. Wacker, W. Welte* 115

NOTPME: a ^{31}P NMR probe for measurement of divalent cations in biological systems (FEBS 09474) *R. Ramasamy, I. Lazar, E. Brucher, A.D. Sherry, C.R. Malloy* 121

Identification of the C2-^1H histidine NMR resonances in chloramphenicol acetyltransferase by a ^{13}C-^1H heteronuclear multiple quantum coherence method (FEBS 09475) *J.P. Derrick, L.-Y. Lian, G.C.K. Roberts, W.V. Shaw* 125

Cerulenin, an inhibitor of lipid synthesis, blocks vesicular stomatitis virus RNA replication (FEBS 09473) *L. Pérez, L. Carrasco* 129

The effects of glucocorticoid hormone on the expression of c-jun (FEBS 09477) *H. Lee, Yu.-T. Shaw, S.-T. Chiou, W.-C. Chang, M.-D. Lai* 134

Multicatalytic and 26 S ubiquitin/ATP-stimulated proteases in maturing rabbit red blood cells (FEBS 09461) *D. Di Cola, G. Pratt, M. Rechsteiner* 137

An extension of secondary structure prediction towards the prediction of tertiary structure (FEBS 09476) *R.C. Garratt, J.M. Thornton, W.R. Taylor* 141

Published by Elsevier Science Publishers B.V.

Crosslinking of Dam methyltransferase with *S*-adenosyl-methionine (FEBS 09478) *C. Wenzel, M. Moulard, A. Løbner-Olesen, W. Guschlbauer* 147
Interferon-γ binds to heparan sulfate by a cluster of amino acids located in the C-terminal part of the molecule (FEBS 09486) *H. Lortat-Jacob, J.-A. Grimaud* 152
Molecular analysis of *tap2*, an anther-specific gene from *Antirrhinum majus* (FEBS 09479) *W.K.F. Nacken, P. Huijser, H. Saedler, H. Sommer* 155
Purification of a lipoxygenase from ungerminated barley: Characterization and product formation (FEBS 09480) *P.G.M. van Aarle, M.M.J. de Barse, G.A. Veldink, J.F.G. Vliegenthart* 159
Tyr-426 of the *Escherichia coli* asparaginyl-tRNA synthetase, an amino acid in a C-terminal conserved motif, is involved in ATP binding (FEBS 09481) *J. Anselme, M. Härtlein* 163
A *Drosophila* nuclear localisation signal included in an 18 amino acid fragment from the *serendipity* δ zinc finger protein (FEBS 09482) *S. Noselli, A. Vincent* 167
Mutations in a semiconserved region of the *Tetrahymena* intron (FEBS 09483) *U. Pace, J.W. Szostak* 171
Immunological studies of the toxic site in ammodytoxin A (FEBS 09484) *V. Čurin-Šerbec, D. Novak, J. Babnik, D. Turk, F. Gubenšek* 175
Structural dynamics in F_1ATPase during the first reaction cycle of ATP hydrolysis (FEBS 09485) *A. Neidhardt, T. Nawroth, M. Hütsch, K. Dose* 179
Isolation and biochemical characterization of a zona pellucida-binding glycoprotein of boar spermatozoa (FEBS 09487) *V. Jonáková, L. Sanz, J.J. Calvete, A. Henschen, D. Čechová, E. Töpfer-Petersen* 183

Notes to Authors 187

Hypothesis

Consensus sequence for processing of peptide precursors at monobasic sites (FEBS 09502) *L. Devi* 189

Research Letters

a-Haemolysin from *E. coli*: Purification and self-aggregation properties (FEBS 09488) *H. Ostolaza, B. Bartolomé, J.L. Serra, F. de la Cruz, F.M. Goñi* 195
The reactivity of cytochrome *c* with soft ligands (FEBS 09489) *A. Schejter, B. Plotkin, I. Vig* 199
Effect of 7β-hydroxycholesterol on astrocyte primary cultures and derived spontaneously transformed cell lines: Cytotoxicity and cholesterogenesis (FEBS 09491) *P. Behr, A. Kupferberg, C. Leray, P.F. Urban, M. Mersel* 202
Combination of Trp and Glu residues for recognition of mRNA cap structure: Analysis of m^7G base recognition site of human cap binding protein (IF-4E) by site-directed mutagenesis (FEBS 09490) *H. Ueda, H. Iyo, M. Doi, M. Inoue, T. Ishida, H. Morioka, T. Tanaka, S. Nishikawa, S. Uesugi* 207
Inactivation of human cystatin C and kininogen by human cathepsin D (FEBS 09492) *B. Lenarčič, M. Krašovec, A. Ritonja, I. Olafsson, V. Turk* 211
P1 variant antithrombins Glasgow (393 Arg to His) and Pescara (393 Arg to Pro) have increased heparin affinity and are resistant to catalytic cleavage by elastase: Implications for the heparin activation mechanism (FEBS 09493) *M.C. Owen, P.M. George, D.A. Lane, D.R. Boswell* 216
Expression of protein kinase C-alpha (PKC-α) and MYCN mRNAs in human neuroblastoma cells and modulation during morphological differentiation induced by retinoic acid (FEBS 09494) *G.P. Tonini, M.T. Parodi, D. Di Martino, L. Varesio* 221
Structure of adsorbed fibrinogen obtained by scanning force microscopy (FEBS 09497) *R. Wigren, H. Elwing, R. Erlandsson, S. Welin, I. Lundström* 225
Nucleotide sequence and chromosomal location of Cab11 and Cab12, the genes for the fourth polypeptide of the photosystem I light-harvesting antenna (LHCI) (FEBS 09498) *E. Schwartz, D. Shen, R. Aebersold, J.M. McGrath, E. Pichersky, B.R. Green* 229
Neuronal protein gene product 9.5 (IEF SSP 6104) is expressed in cultured human MRC-5 fibroblasts of normal origin and is strongly down-regulated in their SV40 transformed counterparts (FEBS 09499) *B. Honoré, H.H. Rasmussen, J. Vandekerckhove, J.E. Celis* 235
Identification of an additional gene belonging to the α_2 adrenergic receptor family in the human genome by PCR (FEBS 09500) *V. Chhajlani, N. Rangel, S. Uhlén, J.E.S. Wikberg* 241
Actinomycin D decreases protein kinase C content and induces neuritogenesis in neuroblastoma cells (FEBS 09501) *M.-D. Miñana, V. Felipo, S. Grisolía* 245
Characterization of glucagon-like peptide-I(7–36)amide receptors of rat lung membranes by covalent cross-linking (FEBS 09503) *G. Richter, R. Göke, B. Göke, H. Schmidt, R. Arnold* 247
A novel inositol-containing glycosphingolipid isolated from human peripheral nerve (FEBS 09504) *J.-E. Månsson, B.-M. Rynmark, L. Svennerholm* 251
Site-directed mutagenesis of alanine-382 of human antithrombin III (FEBS 09505) *R.C. Austin, R.A. Rachubinski, M.A. Blajchman* 254
Chloroplast phosphoribulokinase associates with yeast phosphoriboisomerase in the presence of substrate (FEBS 09506) *C.L. Skrukrud, L.E. Anderson* 259
Downregulation of protein kinase C-γ is independent of a functional kinase domain (FEBS 09507) *I. Freisewinkel, D. Riethmacher, S. Stabel* 262
The organization of the gene for the human cerebroside sulfate activator protein (FEBS 09508) *H. Holtschmidt, K. Sandhoff, W. Fürst, H.Y. Kwon, D. Schnabel, K. Suzuki* 267
Direct cleavage of a DNA fragment by a bleomycin-oligonucleotide derivative (FEBS 09509) *D.S. Sergeyev, T.S. Godovikova, V.F. Zarytova* 271
The effect of F_0 inhibitors on the *Vibrio alginolyticus* membrane ATPase (FEBS 09511) *G. Capozza, O.Yu. Dmitriev, I.A. Krasnoselskaya, S. Papa, V.P. Skulachev* 274
The expression of interleukin-6 by a rat macrophage-derived cell line (FEBS 09510) *T.A. Braciak, J. Gauldie, G.H. Fey, W. Northemann* 277
Eukaryotic DNA primase: Abortive synthesis of oligoadenylates (FEBS 09512) *V.N. Podust, O.V. Vladimirova, E.N. Manakova, O.I. Lavrik* 281
Variability of polyadenylation sites in mRNAs from human fetal liver (FEBS 09513) *V.V. Dmitrenko, V.M. Kavsan* 284
Characterization of cDNA clones encoding guinea pig neutrophil cationic peptides (FEBS 09514) *I. Nagaoka, A. Someya, K. Iwabuchi, T. Yamashita* 287
Biphasic expression of slow myosin light chains and slow tropomyosin isoforms during the development of the human quadriceps muscle (FEBS 09515) *C. Laurent-Winter, N. Soussi-Yanicostas, G.S. Butler-Browne* 292
Electron microscopic and biochemical evidence that proline-β-naphthylamidase is composed of three identical subunits (FEBS 09516) *T. Takahashi, M. Nishigai, A. Ikai, K. Takahashi* 297
Sequence homologies between guanylyl cyclases and structural analogies to other signal-transducing proteins (FEBS 09496) *D. Koesling, G. Schultz, E. Böhme* 301
Novel epoxysuccinyl peptides: Selective inhibitors of cathepsin B, in vitro (FEBS 09518) *M. Murata, S. Miyashita, C. Yokoo, M. Tamai, K. Hanada, K. Hatayama, T. Towatari, T. Nikawa, N. Katunuma* 307
Novel epoxysuccinyl peptides: A selective inhibitor of cathepsin B, in vivo (FEBS 09519) *T. Towatari, T. Nikawa, M. Murata, C. Yokoo, M. Tamai, K. Hanada, N. Katunuma* 311

The expression of the major shed *Trypanosoma cruzi* antigen results from the developmentally-regulated transcription of a small gene family (FEBS 09517) *J.L. Affranchino, G.D. Pollevick, A.C.C. Frasch* 316

The assignment of the 655 nm spectral band of cytochrome oxidase (FEBS 09520) *R. Mitchell, P. Mitchell, P.R. Rich* 321

Molecular structure of the Japanese hepatitis C viral genome (FEBS 09522) *N. Kato, M. Hijikata, M. Nakagawa, Y. Ootsuyama, K. Muraiso, S. Ohkoshi, K. Shimotohno* 325

A method for testing the stability of a steady-state system during the calculation of a response to large changes in regulator concentrations (FEBS 09521) *B. Crabtree, E.A. Newsholme* 329

Two new components of 9 and 14 kDa from spinach photosystem I complex (FEBS 09523) *M. Ikeuchi, Y. Inoue* 332

Purification and some properties of the pectin lyase from *Penicillium italicum* (FEBS 09524) *A. Alaña, M.J. Llama, J.L. Serra* 335

Occurrence of chloroplast ribosome recognition sites within conserved elements of the RNA genomes of carlaviruses (FEBS 09525) *G.D. Foster, P.R. Mills* 341

The effect of salt on the Michaelis Menten constant of the HIV-1 protease correlates with the Hofmeister series (FEBS 09526) *E.M. Wondrak, J.M. Louis, S. Oroszlan* 344

Purification of HIV-1 wild-type protease and characterization of proteolytically inactive HIV-1 protease mutants by pepstatin A affinity chromatography (FEBS 09527) *E.M. Wondrak, J.M. Louis, P.T. Mora, S. Oroszlan* 347

Anaerobically induced expression of the nitrite reductase cytochrome *c*-551 operon from *Pseudomonas aeruginosa* (FEBS 09528) *H. Arai, Y. Igarashi, T. Kodama* 351

Amino acid derivatization and analysis in five minutes (FEBS 09529) *P. Hušek* 354

Cloning and sequence analysis of complementary DNA encoding a precursor for chicken natriuretic peptide (FEBS 09530) *N. Akizuki, K. Kangawa, N. Minamino, H. Matsuo* 357

Characterization of human deoxycytidine kinase: Correlation with cDNA sequences (FEBS 09495) *S. Eriksson, E. Cederlund, T. Bergman, H. Jörnvall, C. Bohman* 363

Expression of rat liver vitamin D_3 25-hydroxylase cDNA in *Saccharomyces cerevisiae* (FEBS 09531) *M. Akiyoshi-Shibata, E. Usui, T. Sakaki, Y. Yabusaki, M. Noshiro, Kyuichiro Okuda, H. Ohkawa* 367

Di(1,N^6-ethenoadenosine)5′, 5‴-P^1,P^4-tetraphosphate, a fluorescent enzymatically active derivative of Ap_4A (FEBS 09532) *P. Rotilán, A. Ramos, J. Pintor, M. Torres, M.T. Miras-Portugal* 371

Studies of the small heat shock proteins of *Caenorhabditis elegans* using anti-peptide antibodies (FEBS 09533) *M.K. Hockertz, I. Clark-Lewis, E.P.M. Candido* 375

The structure of porin from *Rhodobacter capsulatus* at 1.8 Å resolution (FEBS 09534) *M.S. Weiss, A. Kreusch, E. Schiltz, U. Nestel, W. Welte, J. Weckesser, G.E. Schulz* 379

Cleavage of the precursor of pea chloroplast cytochrome *f* by leader peptidase from *Escherichia coli* (FEBS 09535) *C.M. Anderson, J. Gray* 383

The δ subunit of the chloroplast ATPase is plastid-encoded in the diatom *Odontella sinensis* (FEBS 09536) *P.G. Pancic, H. Strotmann, K.V. Kowallik* 387

Short-term energy deficit causes net accumulation of linoleoyl-enriched triacylglycerols in rat liver (FEBS 09538) *Z.-Y. Chen, S.C. Cunnane* 393

Actin depolymerization in the cyclic AMP-stimulated toad bladder epithelial cell, determined by the DNAse method (FEBS 09537) *R.M. Hays, U. Lindberg* 397

Errata & Corrigenda 400

Author Index to volume 280 402

Contents volume 280 407

Notes to Authors 410